ABSTRACT OF THE DISCLOSURE

A fly height controller (10FHC; 10FHC') for controlling the fly height of a read/write head assembly (15) in a disk drive (20) is disclosed. A heat element resistor (30) is disposed within the read/write head assembly (15). The fly height controller (10FHC; 10FHC') includes registers (32R, 32W) for storing digital data words corresponding to the desired drive levels to be applied to the heat element resistor (30) during read and write operations. The registers (32R, 32W) are selectively coupled to a steady-state digital-to-analog converter (DAC) (36), depending upon whether a read or write operation is occurring; the output of the steady-state DAC (36) is applied to a voltage driver (40), which in turn drives current into the heat element resistor (30). Overdrive and underdrive transistors (44P, 44N) are provided to overdrive and underdrive the input to the voltage driver (40) in transitions between read and write operations. An initial state register (50) receives a digital word indicating the desired current for the heat element resistor (30) when unselected; the output of the initial state register (50) is applied to an initial state DAC (52), which drives an initial state voltage driver (54). Control logic (35; 35') controls whether the steady-state voltage driver (40) or initial state voltage driver (54) drives the heat element resistor (30). The fly height controller (10FHC') may also be adapted to control the fly height of multiple read/write head assemblies (15) in a disk drive.